



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,922	12/08/2003	Kia Silverbrook	ZE018US	9696
24011	7590	03/10/2005	EXAMINER	
SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			STEPHENS, JUANITA DIONNE	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,922	<b>Applicant(s)</b> SILVERBROOK ET AL.	
	<b>Examiner</b> Juanita D. Stephens	<b>Art Unit</b> 2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on Continuation filed 12/02/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 2,3, and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10/102,700.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/08/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 10/102700, filed on 3/22/2003.

### *Specification*

2. The disclosure is objected to because of the following informalities:

On page 1, line 1 the cross-reference to related art should be place after the Title. See MPEP 608.01(a). Also in the cross-reference to related art after "10/102,700" insert --now US Patent No. 6,692,113--, and after "March 22, 2002" insert --,--.

On page 1 in the "Co-PENDING APPLICATION" section the US Patent Nos. and filing dates should be inserted, for example as shown with respect to the "cross-reference to related art", the serial numbers are as follows: 09/575,141 (6,428,133), 09/575,125 (6,526,658), and 09/575,108 (6,795,215). Application 09/575109 has not patented.

Appropriate correction is required.

### *Drawings*

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: **Reference numbers 18, 44, 39, 83, 59, 55, 54, 53, 52, 51, 50, 49, for example. Applicant is behooved to review the specification to make sure all the**

**reference numbers a properly identified in the specification.** Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Claim Objections***

4. Claims 1-8 are objected to because of the following informalities:

In claim 1, lines 5 and 6 replace "the support structure" with –the elongate channel member--. There is no support in the claim for the recitation of "the support structure. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2853

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Foote et al. (US 6,655,786 B1).

The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Foote et al. discloses a printhead assembly (Figs. 6 and 12) which comprises: 1) an elongate channel member (12) having a floor (18) and a pair of opposed walls (14, 16) (col 3, Ins 26-30), the elongate channel member being of a metal having thermal expansion properties that are similar to thermal expansion properties of silicon, 2) at least one printhead module (22) positioned in the support structure, along a length of the support structure (col 3, Ins 31-33), the, or each, printhead assembly comprising: 3) an elongate ink supply assembly (first molding 36 and second molding 38) that is positioned in the channel, the ink supply assembly being configured to receive a supply of ink and to provide a plurality of ink flow paths (62, 58) interposed between the supply of ink and a plurality of outlet openings defined by the ink supply assembly (col 5, Ins 42-45), 4) an elongate printhead chip (26) that is mounted on the ink supply assembly to be fed with ink from the ink supply assembly (col 6, Ins 11-19),

Art Unit: 2853

5) which includes a number of ink printhead modules (22) positioned in the channel member such that the ink supply assemblies are positioned end-to-end in the channel member (col 3, lns 31-33) and the printhead chips define an array that spans a print medium, in use, (col 1, lns 21-23), 6) in which the elongate ink supply assembly of each module includes an ink feed member (second molding 38) that is positioned on the floor (18) of the channel member and defines a number of ink channels (62), extending longitudinally with respect to the channel member (col 5, lns 42-45) and in fluid communication with an ink supply and a plurality of outlet openings in fluid communication with respective ink channels from which ink can be fed (as seen in Fig. 12), 7) in which an ink delivery assembly (first molding 36) is positioned on each ink feed member (as seen in Fig. 6), each ink delivery assembly defining a mounting formation to permit the printhead chip to be mounted on the ink delivery system (col 6, lns 1-8), a plurality of ink inlets that are in fluid communication with the outlet openings of the ink feed member, a plurality of exit holes and tortuous ink flow paths from each ink inlet to a number of respective exit holes, each printhead chip incorporating a plurality of nozzle arrangements that extend along a length of the chip, the printhead chip being positioned so that the ink can be fed from the exit holes to the printhead chip (as seen in Fig. 12), and 8) in which each ink feed member is in the form of an extrusion of an elastomeric material, the channels extending longitudinally (62) in the extrusion and the outlet openings being holes defined in a surface of the extrusion to be in fluid communication with respective ink channels (as seen in Fig. 6).

***Allowable Subject Matter***

7. Claims 2, 3, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 3 will be allowed when claim 2 is rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not teach, suggest, or render obvious the limitation of the elongate channel is of a nickel iron alloy, recited in claim 2. This invention solves the problem of enhancing stability.

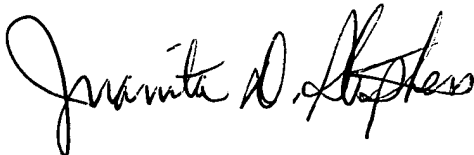
The prior art does not teach, suggest, or render obvious the limitation of in which ink delivery assembly includes a pair of micro-moldings that are positioned so that a lower micro-molding is interposed between an upper micro-molding and the ink feed member, the lower micromolding defining a plurality of ink chambers in fluid communication with respective outlet openings of the ink feed member, via the ink inlets, and the upper micro-molding defining the exit holes in fluid communication with the ink chambers, recited in claim 8. This invention solves the problem of allowing easy removal of and replacement of a defective module, which eliminates having to scrap an entire printhead if only one chip is defective.

**Contact Information**

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juanita D. Stephens whose telephone number is (571) 272-2153. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Juanita D. Stephens  
Primary Examiner  
Art Unit 2853

March 2, 2005